Rec'd PCT/PTO 0 5 JUN 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number

: TBA 10 580 248 Confirmation No.:

TBA

Applicant

: Mimi ADACHI et al.

International Filing Date

: November 19, 2004

Title

: METHOD FOR PROLIFERATING CARDIOMYOCYTES

TC/Art Unit

Examiner:

: TBA

Docket No.

: 64517.000003

Customer No.

: 21967

MAIL STOP PCT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.97 and 1.98, and in compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicants submit the attached Form PTO-SB/08A (modified) for consideration and request the references cited therein be made of record by the U.S. Patent and Trademark Office in the above-captioned application.

Several of the references listed on the attached Form PTO-SB/08A were cited by the Japanese Patent Office in the International Search Report and the Written Opinion of the International Searching Authority for International Application No. PCT/JP2004/017274.

Applicants respectfully point out that the submission of the listed references in this Information Disclosure Statement is not an admission that they are prior art or that they are material to patentability of any claims of the application. Also, the submission of this Information Disclosure Statement is not an indication that a search has been made by Applicants.

For the convenience of the Examiner in considering the cited references, a copy of each of the cited references is enclosed with this communication. In considering the cited references, it may be noted by the Examiner that certain of the references may contain markings, underlinings, and/or other notations. These markings, underlinings, and/or other notations are not to be construed as drawing the Examiner's attention either to selected parts or away from other parts of the cited references. Any such markings were either present on the copies of the cited

PATENT APPLICATION ATTORNEY DOCKET No.: 64517.000003

references obtained by the associated individuals, or were made thereon during the study of the references by the associated individuals.

As this application was filed after June 30, 2003, copies of U.S. patents and/or U.S. patent application publications for national stage applications under 35 U.S.C. 371 cited on the attached Form PTO-SB/08A (modified), are not being provided as specified in 1276 O.G. 55 (5 August 2003).

Consideration of the foregoing plus the prompt return of a copy of the enclosed Form SB/08B with the Examiner's initials in the left column in accordance with MPEP 609 are respectfully requested.

In accordance with 37 C.F.R. § 1.97(b), this Information Disclosure Statement is believed to be submitted prior to issuance of a first Office Action. Therefore, it is respectfully submitted that no fee is required for consideration of this information. However, in the event any fee is deemed necessary, the Commissioner is authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS LLP

Dated: June 5, 2006 By:

Alexander H. Spiegler Registration No. 56,625

Hunton & Williams LLP Intellectual Property Department 1900 K Street, N.W. Suite 1200 Washington, DC 20006 (202) 955-1500 (telephone) (202) 778-2201 (facsimile) RMS/AHS:sac



U.S. Patent and Trademark Office; U.S.	DEPARTMENT OF COMMERC
--	-----------------------

Substitute for form 1449A/PTO		Application Number		TBA 10 580 24X				
INFORMATION DISCLOSURE		DE	International Filing Date		November 19, 2004			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		First Named Inventor		Mimi ADACHI, et al.				
SI F		CIVILINI DI APPLICAL (use as many sheets as necessary)	NI	Art Unit		TBA		
l		use as many sneets as necessary)		Examiner	r Name	Unassigned		
Sheet		1 of 4		Attorney	Docket Number	64517.000003		
		U.S.	. PATI	ENT DO	CUMENTS			
*Examiner	Cite	DOCUMENT NUMBER	Dublicat	tion Date	Name of Patent	*** ***	Pages, Columns, Lines, Where Relevant Passages or Relevant	
Initials	No.	Number - Kind Code (if known)		tion Date Name of Patentee D-YYYY Applicant of Cited Do			Figures Appear	
	1.	US- 2005/0208659 A1	09-22	2-2005	Ikeda, et al.			
	<u> </u>	US-						
	<u> </u>	US-						
		US-						
		US-						
		US-			,			
		US-						
		US-						
		US-						
		US-						
		US-						
		US-	E-1					
- 		US-						
		US-						
		US-						
		US-						
		US-						
		US-	-					
		US-						
		US-						
		US-						
		US-						
		US-						
EXAMI	NER	SIGNATURE			DATE CONSIDERE	ED		
*EXAM	IINER orman	t: Initial if reference considered, whether ce and not considered. Include copy of thi	or not c	citation is in with next co	conformance with MI mmunication to applic	PEP 609. Dr	aw line through citation if not	

Substitute for form 1449/PTO		Application Number International Filing Date First Named Inventor Art Unit		TBA November 19, 2004 Mimi ADACHI, et al. TBA															
INFORMATION DISCLOSURE STATEMENT BY APPLICANT																			
								(use as many sheets as necessary)					Examiner Name		Unassigned				
								Sheet		2 of	4			Atı	torney Docket Number	64517.000003			
				F	OREIGN I	PAT	TENT DOCUMENTS												
				REIGN PATENT DOCUMENT															
ĺ				DOCONIE.VI	Dublication D			Pages, Columns, Lines, Where	TRANSLATION										
*Examiner Initial	Cite No.			y Code Number-Kind Code (if known)	Publication D MM-DD-YY		Name of Patentee or Applicant of Cited Document	Relevant Passages or Relevant Figures Appear	YES NO										
	2.		WO	02/095026	11-28-200)2	Ikeda, et al.												
			i																
			i			···													
	ļ																		
		i																	
						_													
EXAM	INER	SIGN	ATURE	, , , , , , , , , , , , , , , , , , ,			DATE CONSIDERED												
							I on is in conformance with MP xt communication to applicant.	EP 609. Draw line through ci	tation if	not in									

PTO/SB/08B (08/03) (modified) U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO		form 1449/PTO	Application Number	TBA				
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			International Filing Date	November 19, 2004				
			First Named Inventor	Mimi ADACHI, et al.				
			Art Unit	TBA				
	((use as many sheets as necessary)	Examiner Name	Unassigned				
Sheet		3 of 4	Attorney Docket Number	64517.000003				
		OTHER DOCUMENTS - NON-	-PATENT LITERATURE	DOCUMENTS				
*Examiner	Cite No.	Include name of the author (in CAPITAL item (book, magazine, journal, seria	LETTERS), title of the article (when appraid, symposium, catalog, etc.), date, page(s), ter, city and/or country where published	propriate), title of the	TRANSL.	LATION		
	3.	Proliferative Capacity Induced by Cyclin	Tamamori-Adachi, et al., "Loss of skp2 Dependent Degradation of p27 Limits Cardiomyocyte Proliferative Capacity Induced by Cyclin D1NLS/CDK4," 26 th Annual Meeting of the Molecular Biology Society of Japan Program Abstract, November 25, 2003, pg.438, 01J-6.					
	4.		Tamamori-Adachi, et al., "Critical Role of Cyclin D1 Nuclear Import in Cardiomyocyte Proliferation," Circulation Research, Vol. 92, No. 1, pg. 1-8, 2003.					
	5.	Poolman, et al., "Altered Expression of Cell Cycle Proteins and Prolonged Duration of Cardiac Myocyte Hyperplasia in p27 ^{KIP1} Knockout Mice," Circulation Research, Vol. 85, No. 2, pg. 117-127, 1999.						
	6.	Kim, et al., "Successful Inactivation of Endogenous <i>Oct-314</i> and <i>c-mos</i> genes in Mouse Preimplantation Embryos and Oocytes using Short Interfering RNAs," Biochemical and Biophysical Research Communications, Vol. 296, pg. 1372-1377, 2002.						
	7.	Toyoshima, et al., "p27, a Novel Inhibitor of G1 Cyclin-Cdk Protein Kinase Activity, Is Related to p21," Cell, Vol. 78, No.1, pg. 67-74, July 15, 1994.						
	8.	Tsvetkov, et al., "p21 ^{Kip1} Ubiquitination and Degradation is Regulated by the SCF ^{Skp2} Complex Through Phosphorylated Thr187 in p27," Current Biology, Vol. 9, No.12, pg. 661-664, 1999.						
	9.	Pasumarthi, et al., "Cardiomyocyte Cell Cy 1054, 2002.	Pasumarthi, et al., "Cardiomyocyte Cell Cycle Regulation," Circulation Research, Vol. 90, pg. 1044-1054, 2002.					
	10.	Kirshenbaum, et al., "Adenovirus E1A Represses Cardiac Gene Transcription and Reactivates DNA Synthesis in Ventricular Myocytes, Via Alternative Pocket Protein- and p300-binding Domains," The Journal of Biological Chemistry, Vol. 270, No. 14, pg. 7791-7794, 1995.						
	11.	Kirshenbaum, et al., "Human E2F-1 Reactivates Cell Cycle Progression in Ventricular Myocytes and Represses Cardiac Gene Transcription," Developmental Biology, Vol. 179, pg. 402-411, 1996.						
	12.	Soonpaa, et al., "Cyclin D1 Overexpression Promotes Cardiomyocyte DNA Synthesis and Multinucleation in Transgenic Mice," J. Clin. Invest., Vol. 99, No. 11, pg. 2644-2654, June 1997.						
	13.	Toyoda, et al., "jumonji Downregulates Cardiac Cell Proliferation by Repressing cyclin D1 Expression," Developmental Cell, Vol. 5, pg. 85-97, July 2003.						
EXAMI	NER	SIGNATURE	DATE CONSIDERED					
		R: Initial if reference considered, whether or not coe and not considered. Include copy of this form we			itation	if not		

Substitute for form 1449/PTO		form 1449/PTO	Application Number	TBA			
_	_	•	International Filing Date	November 19, 2004			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		RMATION DISCLOSURE	First Named Inventor	Mimi ADACHI, et al.			
		EMENT BY APPLICANT	Art Unit	TBA			
	i	(use as many sheets as necessary)					
31 (\neg		Examiner Name	Unassigned			
Sheet		4 of 4	Attorney Docket Number	64517.000003			
		OTHER DOCUMENTS - NON-	-PATENT LITERATURE	DOCUMENTS			
*Examiner	Cite No.	item (book, magazine, journal, serial	LETTERS), title of the article (when appraid, symposium, catalog, etc.), date, page(s),		TRANSL	T	
	14.		er, city and/or country where published	Family Mambars and	YES	NO	
	14.	Increased Cyclin-dependent Kinase Inh	Flink, et al., "Changes in E2F Complexes Containing Retinoblastoma Protein Family Members and Increased Cyclin-dependent Kinase Inhibitor Activities During Terminal Differentiation of Cardiomyocytes," J. Mol. Cell. Cardiol., Vol. 30, pg. 563-578, 1998.				
	15.	von Harsdorf, et al. "E2F-1 Overexpression in Cardiomyocytes Induces Downregulation of p21 ^{CIP1} and p27 ^{KIP1} and Release of Active Cyclin-Dependent Kinases in the Presence of Insulin-Like Growth Factor I," Circulation Research, Vol. 85, pg. 128-136, 1999.					
	16.	Carrano, et al., "SKP2 is Required for Ubiquitin-mediated Degradation of the CDK Inhibitor p27," Nature Cell Biology, Vol. 1, pg. 193-199, August 1999.					
	17.	Bornstein, et al., "Role of the SCF ^{Skp2} Ubiquitin Ligase in the Degradation of p21 ^{Cip1} in S Phase," The Journal of Biological Chemistry, Vol. 278, No. 28, pg. 25752-25757, July 11, 2003.					
	18.	Kamura, et al., "Degradation of p57 ^{Kip2} Me Acad. Sci. USA, Vol. 100, No. 18, pg. 1023	ediated By SCF ^{Skp2} -dependent Ul 31-10236, September 2, 2003.	biquitylation," Proc. Natl.			
		_					
EXAMI	NER	SIGNATURE	DATE CONSIDERED				
		R: Initial if reference considered, whether or not conce and not considered. Include copy of this form we			citation i	if not	